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Subject: Resistor attenuation

Posted by [Jerry Parker](#) on Sun, 11 Aug 2002 19:16:34 GMT

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Hey Wayne, Mitch and I listened to the 4pi's A LOT this weekend, playing lots of music and like 3 movies. I have come to this conclusion. They sound perfect on movies, no changes needed. They also sound perfect when played outdoors, the bass is amazing. But the odd thing is, when inside when playing music, it seems that they have too much midrange, and the bass and treble is too rolled off. Obviously changing the resistor block out, we can fix the problem with the treble, and the bass isn't a problem, since Mitch has a subwoofer. I don't have the plans in front of me right now, but what are the resistor and capacitor values needed for 14dB of attenuation vs the standard 10dB? I figure he might as well build the alternate tweeter filter, just to see which he likes better. I personally think I would like the 14dB attenuation better, since they will be used primarily indoors. But when used outdoors, the stock configuration works perfect! Do you have any other suggestions? Thanks again Wayne! Also, we will probably put the veneer on the speakers this Wednesday, so you could probably come over and hear them sometime after that. Let me know your schedule.

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Subject: Re: Resistor attenuation

Posted by [Wayne Parham](#) on Sun, 11 Aug 2002 21:12:01 GMT

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Generally, speakers like this sound a little bass-shy in large rooms or outdoors. That's why subwoofers are often used. Indoors, they usually sound pretty balanced, although subwoofers are sometimes still employed to smooth room modes. My guess is that your room is pretty lively, either hardwood paneling or glass and not a lot of furniture. In that case, I would suggest just turning the treble down a notch, but you can also do that by modifying the crossover to attenuate the tweeter a little more. The schematic included in the plans show a chart of values for various levels of attenuation. The 10dB unit has  $R1=16$ ,  $R2=16$  and  $C1=0.47$ , the 12dB unit has  $R1=25$ ,  $R2=16$  and  $C1=0.47$  and the 14dB unit has  $R1=30$ ,  $R2=14$  and  $C1=0.33\mu F$ . You could install the 12dB or 14dB values.